

What is claimed is:

1. A communication system, wherein:

a central station and a base station are connected by using an optical transmission path;

5 the base station and a wireless terminal are connected by using a wireless transmission path; and

the frequency of an optical signal transmitted via the optical transmission path is lower than the frequency of a wireless signal transmitted via the wireless transmission path.

10 2. The communication system according to claim 1, wherein:

an optical signal that has not been carrier-modulated is used as the optical signal transmitted via the optical transmission path; and

15 a wireless signal that has been carrier-modulated is used as the wireless signal transmitted via the wireless transmission path.

3. The communication system according to claim 2, wherein the central station comprises an Electrical to Optical converter that converts an electrical signal into an optical signal and
20 outputs the optical signal to the optical transmission path.

4. The communication system according to claim 3, wherein the central station comprises a multiplexing circuit that subjects a plurality of electrical base signals to code-division multiplexing, time-division multiplexing or
25 wavelength-division multiplexing and then outputs the multiplexed signal to the Electrical to Optical converter.

5. The communication system according to claim 2, wherein

the base station comprises:

an Optical to Electric converter that converts an optical signal that is input via the optical transmission path into an electrical signal;

5 a carrier modulator that carrier-modulates the electrical signal that is input by the Optical to Electric converter; and

 a transmitter antenna that converts the electrical signal that is input by the carrier modulator into a wireless
10 signal.

6. The communication system according to claim 2, wherein the wireless terminal comprises:

 a receiver antenna that converts a wireless signal into an electrical signal; and

15 a carrier demodulator that carrier-demodulates the electrical signal that is input by the receiver antenna.

7. The communication system according to claim 6, wherein the wireless terminal comprises a demultiplexing circuit that subjects a carrier-demodulated electrical signal to
20 code-division demultiplexing, time-division demultiplexing or wavelength-division demultiplexing.

8. The communication system according to claim 2, further comprising an electrical distributor that converts an optical signal that is input via the optical transmission path into an
25 electrical signal and then distributes this electrical signal.

9. The communication system according to claim 8, wherein the base station comprises:

a carrier modulator that carrier-modulates the electrical signal that is input by the electrical distributor; and

5 a transmitter antenna that converts the electrical signal that is input by the carrier modulator into a wireless signal.

10 10. The communication system according to claim 8, wherein a plurality of the base station is connected to the electrical distributor.

11. The communication system according to claim 8, wherein one or a plurality of the base station and one or a plurality of wired terminals are connected to the electrical distributor.

12. The communication system according to claim 2, further comprising an optical distributor that distributes the optical signal that is input via the optical transmission path.

13. The communication system according to claim 12, wherein a plurality of the base station is connected to the optical distributor.

14. The communication system according to claim 12, wherein one or a plurality of the base station and one or a plurality of wired terminals are connected to the optical distributor.

15. The communication system according to claim 12, wherein one or a plurality of the base station and one or a plurality of electrical distributors are connected to the optical distributor.

16. The communication system according to claim 15, wherein a plurality of the base station is connected to the electrical

distributor.

17. The communication system according to claim 12, wherein the optical signal is a signal that is produced by subjecting a plurality of optical signals to wavelength-division
5 multiplexing.

18. The communication system according to claim 17, wherein each of the base stations comprises a frequency filter for wavelength-demultiplexing the multiplexed signal.

19. The communication system according to claim 17, further
10 comprising a demultiplexer for wavelength-dividing the optical signal and then outputting a wavelength-divided optical signal to each of the plurality of optical distributors corresponding with each wavelength.

20. The communication system according to claim 17, wherein
15 each of the plurality of wavelength-division multiplexed optical signals is a code-division multiplexed signal or a time-division multiplexed signal.